

# Notic of Allowability

Applicati n N .

10/761,126

Examiner

Pia F Tibbits

Applicant(s)

CRAWFORD, IAN D.

Art Unit

2838

-- The MAILING DATE of this communication appears on the cover sheet with the correspond nce address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the application filed 1/20/2004.
2. ☒ The allowed claim(s) is/are 1-19.
3. ☒ The drawings filed on 20 January 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

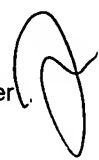
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 4/22/2004
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

Pia F Tibbits  
Primary Examiner  
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**DETAILED ACTION****All wable Subject Matter**

## 1. Claims 1-19 are allowed.

With regard to claims 1-10: none of the references of record prior to applicant's filing date discloses, teaches, or suggests a novel combination of elements a power factor corrected capacitor charger comprising, *inter alia*, a full wave bridge rectifier receiving AC mains power and providing a full-wave rectified DC waveform on a power line and a return line; a first-fourth switch having a first pole and a second pole; a first diode having an anode and a cathode; a capacitor having a first pole and a second pole; an inductor; a transformer comprising a primary winding and a secondary winding, the secondary winding powering a load; wherein the anode of the first diode is connected to the power line; the first pole of the first switch is connected to the cathode of the first diode and to the first pole of the capacitor; the second pole of the capacitor is connected to the return line; the second pole of the first switch is connected to the first pole of the fourth switch and to a first end of the inductor; a second end of the inductor is connected to a first end of the primary winding of the transformer; the second pole of the fourth switch is connected to the return line; the first pole of the second switch is connected to the power line; the second pole of the second switch is connected to the first pole of the third switch and to a second end of the primary winding of the transformer.

With regard to claims 11-19: none of the references of record prior to applicant's filing date discloses, teaches, or suggests a method of charging a storage capacitor comprising the steps of if there is input voltage available sufficient to drive current through the inductor and the transformer primary, operating the bridge rectifier as a bridge converter; if there is not input voltage available sufficient to drive current through the inductor and the transformer primary, switching the at least one output rectifier into a conducting state thus effectively shorting the secondary winding of the transformer and storing energy in the inductor.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Pia Tibbits whose telephone number is (571) 272-2086.

3. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PFT

July 8, 2004

Pia Tibbits

Primary Patent Examiner